US-PAT-NO: **3734819**

DOCUMENT-IDENTIFIER: US 3734819 A

TITLE: ETHYLENE-VINYL ACETATE EMULSION ADHESIVE

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US Patent No. - PN (1):
3734819

Detailed Description Text - DETX (7):
These examples demonstrate the improvement in vinyl hot strength by the addition of fully hydrolyzed (98-100 percent hydrolyzed) **polyvinyl alcohol to the ethylene-vinyl acetate** emulsion adhesive. Several adhesive compositions are prepared in accordance with the procedure set forth in Examples 1-8 with varying amounts and types of hydrolyzed polyvinyl alcohol. The adhesive compositions are then subjected to the hot vinyl adhesion test as described in Examples 1-8 and the hot strength is reported in the following TABLE IV.
##SPC2##

Claims Text - CLTX (9):
6. The process defined in claim 1 wherein said heel comprises an aqueous emulsion containing about 55 weight percent of solids and comprising between about 1.5 and 2.5 weight percent of **polyvinyl alcohol and an ethylene-vinyl acetate** copolymer containing between about 10 and 15 weight percent ethylene.

FAST Browser - 1.30 (2) (concrete or | US 3734819 A | Trig S,T1 | Doc: 2/2 | Format: KWIC

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	Document ID	Title
1	US 4140668 A	Water soluble or water dispersi
2	US 3734819 A	ETHYLENE-VINYL ACETAT

US-PAT-NO: 3734819

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ETATE EMULSION ADHESIVE

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Brief Summary Text - BSTX (60):

The adhesive latex can be successfully applied to any solid substrate, such as, wood, glass, concrete, metals, synthetic resins, etc., or any conventional support structure. The surface of the substrate can be relatively rough, smooth or highly polished, however, the adhesion will be better if the substrate surface is slightly rough. Thus in one embodiment of this invention, the adhesive latex can be employed to adhere a polyvinyl chloride sheet to a wooden or metal surface.

United States Patent [19]

Knutson

[11] **3,734,819**

[45] **May 22, 1973**

[54] **ETHYLENE-VINYL ACETATE EMULSION ADHESIVE**

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[73] Assignee: Union Oil Company of California, Los Angeles, Calif.

[22] Filed: Feb. 14, 1972

[21] Appl. No.: 226,256

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 50,880, June 29, 1970, abandoned.

[52] U.S. Cl. ..... 161/254, 156/328, 156/332, 161/251, 260/17 A, 260/17.4 ST, 260/29.6 WA, 260/29.6 WB, 260/87.3, 260/878 R

[51] Int. Cl. C08f 37/00, C09j 3/14

[58] Field of Search ..... 260/29.6 WA, 29.6 WB, 260/17.4 ST, 79.3 M, 17 A, 8, 29.6 TA; 161/254

[56] References Cited

UNITED STATES PATENTS

2,300,920	11/1942	Hauer	260/29.65 Q
2,859,191	11/1958	Turnbull	260/29.6
3,010,929	11/1961	Jones	260/29.6
3,265,634	8/1966	Glabisch et al.	260/29.6
3,320,199	5/1967	Stanisuki et al.	260/29.6
3,334,081	8/1967	Madgwick et al.	260/94.9
3,353,322	11/1967	Worrall et al.	117/126

FOREIGN PATENTS OR APPLICATIONS

1,117,711 4/1968 Great Britain

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Attorney—Milton W. Lee, Richard C. Hartman, and Lannis S. Henderson et al.

[57] **ABSTRACT**

A process for the production of an aqueous emulsion of an ethylene-vinyl acetate polymer is disclosed wherein the polymerization is performed in the presence of a heel, a small amount of a vinyl or C_3 to C_{10} vinylalkylene, vinylcycloalkylene or vinylarylene sulfonic acid or the sodium, potassium, lithium or ammonium salt thereof and a minor amount of a polyvinyl alcohol protective colloid. The heel is an aqueous emulsion of an ethylene vinyl-acetate polymer which contains from 1 to 20 weight percent ethylene and a small amount of polyvinyl alcohol colloid. The polymerization is performed under an ethylene pressure of 100 to 1,000 psig., sufficient to incorporate from 1 to 20 weight percent ethylene into the final polymer product and carried out until the total free monomer content of the emulsion is maintained below about 1 weight percent. Conventional free radical initiation of the polymerization reaction is used. The resultant emulsion can be used as an adhesive since films formed therefrom exhibit a high degree of adhesiveness to vinyl surfaces.

13 Claims, No Drawings